

IL'IN, V.S.; STEPANOVA, N.G.

Activity of hexokinase, glucose-6-phosphate dehydrogenase and glucose-6-phosphatase of liver cell fractions in rabbit embryos and full-grown animals following introduction of glucocorticosteroids. Vop. med. khim. 10 no.6:576-584 N-D '64.

(MIRA 19:1)

1. Otdel biokhimii Instituta eksperimental'noy meditsiny AMN SSSR, Leningrad.

L-57476-65

ACCESSION NR: AP5014190

UR/0385/65/001/001/0032/0037
577.154.2+591.543.42:591.436.2
+591.175:599.322.2

AUTHOR: Daudova, G. M.; Stepanova, N. G.

14
B

TITLE: Hexokinase and glucokinase in liver and muscle cell fractions of susliks during hibernation and awakening

SOURCE: Zhurnal evolyutsionnoy biokhimii i fiziologii, v. 1, no. 1, 1965, 32-37

TOPIC TAGS: laboratory animal, metabolism, enzyme, liver, hibernation, muscle protein, physiology

ABSTRACT: Experiments were performed to determine glucokinase activity in the mitochondria and soluble fraction from the muscles and liver of wakeful adult susliks (*Citellus pygmaeus* Pall.) and the activity of hexokinase and glucokinase in liver mitochondria during hibernation and at the time of awakening of these animals. Hexokinase activity in the liver and muscles of wakeful susliks was found to be much higher than in such laboratory animals as rabbits or rats. Also, its distribution between the cell fractions differed from that in the laboratory animals. Translated

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L 57476-65

ACCESSION NR: AP5014190

into protein content of the fractions, hexokinase activity was more intense in the liver mitochondria of the susliks. However, it was only slightly higher in the soluble liver fraction of the susliks than in the rats and rabbits. As in the rabbits and rats, glucokinase activity in the susliks was concentrated mainly in the soluble liver fraction. No glucokinase was found in the muscles of the susliks. Hexokinase activity in the liver mitochondria of hibernating susliks was less by a factor of 5.5 when compared with wakeful animals, whereas glucokinase activity decreased only slightly during hibernation. When the animals were awakened, hexokinase activity in the mitochondria increased sharply within 12-15 minutes, although body temperature rose insignificantly. Thereafter, hexokinase activity continued to increase in parallel with the rise in body temperature. Glucokinase activity in the mitochondria diminished during hibernation but tended to increase when the animals were awakened. The high hexokinase activity in the liver and muscles of wakeful susliks is regarded by the authors as a form of adaptation. Orig. art. has: 2 figures, 1 table.

ASSOCIATION: Otdel obshchey patologii i otdel biokhimii Instituta eksperimental'noy meditsiny AMN SSSR, Leningrad (General Pathology and Biochemistry Departments, Institute of Experimental Medicine, AMN SSSR)

Card 2/3

L 57476-65

ACCESSION NR: AP5014190

SUBMITTED: 11Nov64

ENCL: 00

SUB CODE: LS

NO REF SOV: 006

OTHER: 006

elap
Card 3/3

BOYTSOVA, V.F., RUSINOVA, K.D., STEPANOVA, N.I.

Determination of moisture in bromine. Zav.lab. 26 no.5:550-
551 '60. (MIRA 13:7)

1. Gosudarstvennyy institut prikladnoy khimii.
(Bromine--Analysis) (Moisture)

STEPANOVA, N.I.

Splenectomy in the acute stage of Werlhof's disease in children.
Vop. okh. mat. i det. 6 no.4:14-16 Ap '61. (MIRA 14:6)

1. Iz kafedry detskoy khirurgii (zav. - prof. A.F.Zverev) Sverdlov-
skogo meditsinskogo instituta.
(PURPURA (PATHOLOGY)) (SPLEEN--SURGERY)

KRASIK, L.B.; YEGOROVA, A.I.; GEYKMAN, K.P.; SKOROSPESHKINA, M.I.;
KARKASHEVA, A.R.; PAREKHA, A.A.; GUZHAVINA, E.V.;
STEPANOVA, N.I.

Physical development of pupils in the boarding schools of
Perm (according to examination data of 1962). Zdrav. Ros.
Feder. 7 no.6:22-26 Je '63. (MIRA 17:1)

1. Iz kafedry pediatrii (zav. - dotsent L.B. Krasik)
Permskogo meditsinskogo instituta (rektor - dotsent T.V.
Ivanovskaya).

STEPANOV, N. I. (Post Graduate Student), I. V. Abramov, A. A. Tsaprun, Cand Vet Sci,
E. M. Lebedev, Veterinarian
"The Significance of the Number of Ticks in Affection of Animals with the
Agents of Hemosporidiosis"

SO: Trudy Vsesoyuznogo Instituta Eksperimental'noy Veterinarii, Vol 19, No 2, 1952, Moscow

ГЕРАШОВА, Н. И., Post Graduate Student and I. V. ABRAMOV, ~~1974~~, June 1971

"Detection of Hemosporidia in the Eggs of Ticks *Rhipicephalus Bursa*"

SO: Trudy Vsesoyuznogo Instituta Eksperimental'noy Veterinarii, Vol 19, No 2, Moscow, 1952

Leopoldo Amador, born 1949, IIR No A178

ZOTOV, A.P.; CHUMAKOV, M.P.; MARKOV, A.A.; STEPANOVA, N.I.; PETROV, A.N.

Experimental induction and serological investigations of Q fever.
Veterinariia 33 no.7:44-53 J1 '56. (MIRA 9:9)
(Q fever)

Country : USSR

E

Category: Virology. Viruses of Man and Animals.
Rickettsias

Abs Jour: Ref Zhur-Biol., No 23, 1958, No 103554

Author : Zotov, A.P.; Churakov, M.P.; Markov, A.I.; Stepanova,
N.I.

Institution : All-Union Institute of Experimental Veterinary Medicine

Title : Experimental Study of "Q" Fever in Agricultural Animals
(First Report). Experimental Reproduction of the Disease

Orig. Pub: Tr. Vses. nauch. eksped. veterinarii, 1957, 20, 76-89.

Abstract: Sheep, goats, long-horned cattle, horses and pigs were infected by means of the administration of massive doses of Rickettsia burnetii (intravenously, subcutaneously, intramuscularly, orally, intranasally)

Card : 1/2

Country : USSR

E

Category: Virology. Viruses of Man and Animals.
Rickettsias

Abs Jour: Ref Zhur-Biol., No 23, 1958, No 103554

and by means of contact with sick animals and the application of infected ticks. The clinical signs of the disease were more pronounced in animals of the first group than in those of the second. The disease had a relapsing course (up to 10 relapses), which was observed during the eight months after infection. Four infected gravid sheep delivered two dead and four live lambs, of which one died on the 26th day of life. A large number of Rickettsias were found on smears from the fetal membranes of sheep which had been infected one month before delivery.

Card : 2/2

Country : USSR

E

Category: Virology. Viruses of Man and Animals.
Rickettsias.

Abs Jour: Ref Zhur-Biol., No 23, 1958, 103555

were observed in the 3d-9th week, after which the quantity of antibodies decreased; however, they were found for 11-14 months. In animals infected by means of contact with sick animals or the application of infected ticks, the antibodies appeared on the 14th-26th day after clinical recovery, reached lower titers and disappeared more quickly. The highest titers and the greatest persistence of the antibodies was observed in sheep; then, in long-horned cattle, and, finally, in horses.

Card : 2/2

USSR / Zooparasitology. General Problems.

G

Abs Jour: Ref Zhur-Biol., No 6, 1959, 24190.

Author : Stepanova, M. I.

Inst : All-Union Institute of Experimental Veterinary
Medicine.

Title : On the Problem of the Epizootology of Babesielliasis of Sheep.

Orig Pub: Tr. Vses. in-ta eksperim. veterinarii, 1957, 21,
123-141.

Abstract: With the aim of clarifying the problem of whether the sheep parasite-carriers of babesielliasis are sources of acarine infection and to what degree various stages of development of acarid Rhipicephalus bursa are epizootologically dangerous, experimental investigations were conducted with the strain Babesiella ovis, received from the Ar-

Card 1/2

STEFANOVA, N.I., kand. vet. n. nauk

Complement fixation reaction during anaplasmosis in cattle.
Veterinariia 33 no.4246-48 Ap '61 (MIRA 18:1)

1. Vsesoyuznyy institut eksperimental'noy veterinarii.

STEFANOVA, H. I.; MAROV, A. A.; DEONOV, A. A.; STROVILIN, I. I.

"Emploi du xenodiagnostic et de la reaction de fixation du complement pour la differentiation des especes de Theileria."

report submitted for 1st Intl Cong, Parasitology, Rome, 21-26 Sep 1964.

Inst of Experimental Veterinary Medicine, Moscow G-378.

1940-1941, 1942-1943, 1944-1945, 1946-1947, 1948-1949, 1950-1951, 1952-1953, 1954-1955, 1956-1957, 1958-1959, 1960-1961, 1962-1963, 1964-1965, 1966-1967, 1968-1969, 1970-1971, 1972-1973, 1974-1975, 1976-1977, 1978-1979, 1980-1981, 1982-1983, 1984-1985, 1986-1987, 1988-1989, 1990-1991, 1992-1993, 1994-1995, 1996-1997, 1998-1999, 2000-2001, 2002-2003, 2004-2005, 2006-2007, 2008-2009, 2010-2011, 2012-2013, 2014-2015, 2016-2017, 2018-2019, 2020-2021, 2022-2023, 2024-2025, 2026-2027, 2028-2029, 2030-2031, 2032-2033, 2034-2035, 2036-2037, 2038-2039, 2040-2041, 2042-2043, 2044-2045, 2046-2047, 2048-2049, 2050-2051, 2052-2053, 2054-2055, 2056-2057, 2058-2059, 2060-2061, 2062-2063, 2064-2065, 2066-2067, 2068-2069, 2070-2071, 2072-2073, 2074-2075, 2076-2077, 2078-2079, 2080-2081, 2082-2083, 2084-2085, 2086-2087, 2088-2089, 2090-2091, 2092-2093, 2094-2095, 2096-2097, 2098-2099, 2100-2101, 2102-2103, 2104-2105, 2106-2107, 2108-2109, 2110-2111, 2112-2113, 2114-2115, 2116-2117, 2118-2119, 2120-2121, 2122-2123, 2124-2125, 2126-2127, 2128-2129, 2130-2131, 2132-2133, 2134-2135, 2136-2137, 2138-2139, 2140-2141, 2142-2143, 2144-2145, 2146-2147, 2148-2149, 2150-2151, 2152-2153, 2154-2155, 2156-2157, 2158-2159, 2160-2161, 2162-2163, 2164-2165, 2166-2167, 2168-2169, 2170-2171, 2172-2173, 2174-2175, 2176-2177, 2178-2179, 2180-2181, 2182-2183, 2184-2185, 2186-2187, 2188-2189, 2190-2191, 2192-2193, 2194-2195, 2196-2197, 2198-2199, 2200-2201, 2202-2203, 2204-2205, 2206-2207, 2208-2209, 2210-2211, 2212-2213, 2214-2215, 2216-2217, 2218-2219, 2220-2221, 2222-2223, 2224-2225, 2226-2227, 2228-2229, 2230-2231, 2232-2233, 2234-2235, 2236-2237, 2238-2239, 2240-2241, 2242-2243, 2244-2245, 2246-2247, 2248-2249, 2250-2251, 2252-2253, 2254-2255, 2256-2257, 2258-2259, 2260-2261, 2262-2263, 2264-2265, 2266-2267, 2268-2269, 2270-2271, 2272-2273, 2274-2275, 2276-2277, 2278-2279, 2280-2281, 2282-2283, 2284-2285, 2286-2287, 2288-2289, 2290-2291, 2292-2293, 2294-2295, 2296-2297, 2298-2299, 2300-2301, 2302-2303, 2304-2305, 2306-2307, 2308-2309, 2310-2311, 2312-2313, 2314-2315, 2316-2317, 2318-2319, 2320-2321, 2322-2323, 2324-2325, 2326-2327, 2328-2329, 2330-2331, 2332-2333, 2334-2335, 2336-2337, 2338-2339, 2340-2341, 2342-2343, 2344-2345, 2346-2347, 2348-2349, 2350-2351, 2352-2353, 2354-2355, 2356-2357, 2358-2359, 2360-2361, 2362-2363, 2364-2365, 2366-2367, 2368-2369, 2370-2371, 2372-2373, 2374-2375, 2376-2377, 2378-2379, 2380-2381, 2382-2383, 2384-2385, 2386-2387, 2388-2389, 2390-2391, 2392-2393, 2394-2395, 2396-2397, 2398-2399, 2400-2401, 2402-2403, 2404-2405, 2406-2407, 2408-2409, 2410-2411, 2412-2413, 2414-2415, 2416-2417, 2418-2419, 2420-2421, 2422-2423, 2424-2425, 2426-2427, 2428-2429, 2430-2431, 2432-2433, 2434-2435, 2436-2437, 2438-2439, 2440-2441, 2442-2443, 2444-2445, 2446-2447, 2448-2449, 2450-2451, 2452-2453, 2454-2455, 2456-2457, 2458-2459, 2460-2461, 2462-2463, 2464-2465, 2466-2467, 2468-2469, 2470-2471, 2472-2473, 2474-2475, 2476-2477, 2478-2479, 2480-2481, 2482-2483, 2484-2485, 2486-2487, 2488-2489, 2490-2491, 2492-2493, 2494-2495, 2496-2497, 2498-2499, 2500-2501, 2502-2503, 2504-2505, 2506-2507, 2508-2509, 2510-2511, 2512-2513, 2514-2515, 2516-2517, 2518-2519, 2520-2521, 2522-2523, 2524-2525, 2526-2527, 2528-2529, 2530-2531, 2532-2533, 2534-2535, 2536-2537, 2538-2539, 2540-2541, 2542-2543, 2544-2545, 2546-2547, 2548-2549, 2550-2551, 2552-2553, 2554-2555, 2556-2557, 2558-2559, 2560-2561, 2562-2563, 2564-2565, 2566-2567, 2568-2569, 2570-2571, 2572-2573, 2574-2575, 2576-2577, 2578-2579, 2580-2581, 2582-2583, 2584-2585, 2586-2587, 2588-2589, 2590-2591, 2592-2593, 2594-2595, 2596-2597, 2598-2599, 2600-2601, 2602-2603, 2604-2605, 2606-2607, 2608-2609, 2610-2611, 2612-2613, 2614-2615, 2616-2617, 2618-2619, 2620-2621, 2622-2623, 2624-2625, 2626-2627, 2628-2629, 2630-2631, 2632-2633, 2634-2635, 2636-2637, 2638-2639, 2640-2641, 2642-2643, 2644-2645, 2646-2647, 2648-2649, 2650-2651, 2652-2653, 2654-2655, 2656-2657, 2658-2659, 2660-2661, 2662-2663, 2664-2665, 2666-2667, 2668-2669, 2670-2671, 2672-2673, 2674-2675, 2676-2677, 2678-2679, 2680-2681, 2682-2683, 26

Toxoplasmosis in sheep. Veterinaria 41 no.5:66-69 Ny 1964.
(MIRA 18:3)

1. Vsesoyuznyy institut eksperimental'noy veterinarii.

MARKOV, A.A., prof.; STEPANOVA, N.I., starshiy nauchnyy sotrudnik;
TIMOFEEV, B.A., starshiy nauchnyy sotrudnik

Studying toxoplasmosis in swine. Veterinariia 42 no.7:45-46
Jl '65. (MIRA 18:2)

1. Vsesoyuznyy institut eksperimental'noy veterinarii.

PETTYAKINA, Ye.I.; EMINOV, Ye.A.; SHAMES, F.Ya.; STEPANOVA, N.K.

Lubricant performance of spindle and machine oils from eastern
sulfur-bearing crudes. Trudy VNII NP no.7:86-96 '58.

(MIRA 12:10)

(Lubrication and lubricants--Testing)

L 27266-66 EWT(1)/FCC GW

ACC NR: AP6009546

SOURCE CODE: UR/0413/66/000/005/0078/0079

AUTHORS: Gulyayev, A. A.; Manuylov, K. N.; Gershenson, G. S.; Mogil'ner, I. N.;
Stepanova, N. K.; Shapiro, M. Ya. 29
B.

ORG: none

TITLE: Atmospheric pressure transducer.¹⁰ Class 42, No. 179497 [announced by
Scientific Research Institute of Hydrometeorological Instrument Manufacture
(Nauchno-issledovatel'skiy institut gidrometeorologicheskogo priborostroyeniya)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 5, 1966,
78-79

TOPIC TAGS: atmospheric pressure,¹² pressure transducer

ABSTRACT: This Author Certificate presents an atmospheric pressure transducer¹²
containing elastic sensor elements, e.g., in the form of vacuum sylphons fastened
to a beam connected to vibrotrons, a zero unit, a compensator, and a readout sys-
tem. To increase the accuracy of measurements and to improve the dynamic proper-
ties of the transducer, the beam is suspended from two identical vibrotron strings
and has a constant stationary load and a movable compensation load (see Fig. 1). 2

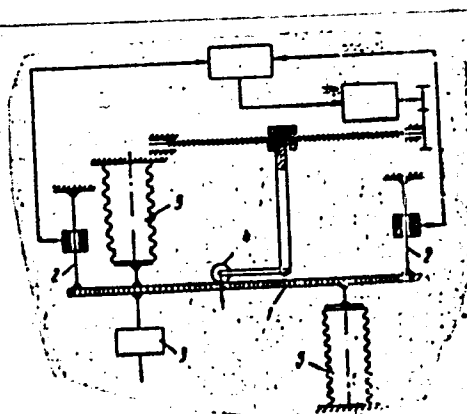
Card 1/2

UDC: 551.508.49

L 27266-66

ACC NR: AP6009546

Fig. 1. 1 - beam; 2 - vibrotron strings;
3 - constant stationary load;
4 - movable compensation load;
5 - sensor elements.



Two sensor elements are fastened to the beam on opposite sides so that one increases the string tension in one of the vibrotrons and the other decreases the string tension of the other vibrotron. Orig. art. has: 1 diagram.

SUB CODE: 10, 04/ SUBM DATE: 16Dec64

Card 2/2 CC

STEPANCOVA, N. M.: Master Med Sci (diss) -- "Material on the study of changes in the nervous system in tularemia". Voronezh, 1958. 15 pp (Voronezh State Med Inst), 200 copies (KL, No 2, 1959, 126)

IVANOV, V.A.; STEPANOVA, N.M.

Possibility of benthonic sedimentation of resin resulting from the discharge of waste water from the production of synthetic rubber into a reservoir. Trudy Vor. med. inst. 47:19-22'62
(MIRA 16:12)

1. Kafedra gigiyeny Voronezhskogo gosudarstvennogo meditsinskogo instituta i laboratoriya Voronezhskogo filiala Vsesoyuznogo nauchno-issledovatel'skogo instituta sinteticheskogo kauchuka po kharakteristike stokov proizvodstva sinteticheskogo kauchuka.

ARBUZOV, B.A.; VINBERG, L.I.; GOLUBOVICH, M.P.; STEPANOVA, N.M.;
NEYFAK, Ye.V.; TSAREVSKIY, N.I.

Casting into chill molds from wooden patterns. Alium. splavy
no.1:182-194 '63. (MIRA 16:11)

STEFANOVA, N.M.; kand.med.nauk

Analysis of differential-diagnostic criteria in tumors and
vascular diseases of the brain. Trudy Vor. red. inst. 51:32-37
'63.

Case of encephalitis with a periodic "sleep" syndrome. Ibid.:99-102

Clinical aspects of encephalitis with Dalrymple-Stellwig syndrome.
Ibid.:103-104 (MIRA 18:10)

1. Kafedra nervnykh bolezney Voronezhskogo meditsinskogo instituta.

IVANOV, V.A.; STEPANOVA, N.M.; TOGORELOVA, M.V.

Experimental basis for the maximum permissible butyl acrylate concentration in the water of reservoirs and rivers. San. okhr. vod. ot zagr. prom. stoeh. vod. no.6:134-146 '64.

(MIRA 18:3)

1. Kafedra gigiyeny Voronezhskogo meditsinskogo instituta i laboratoriya Voronezhskogo filiala Vsesoyuznogo nauchno-issledovatel'skogo instituta iskusstvennogo kauchuka imeni S.V.Lebedeva.

KUNAKOV, E.A., prof.; STEPANOVA, N.M., kand.med.nau

pathobiological cerebral changes in vascular diseases. Trudy Vor.
med. inst. 51:49-52 '63. (MIRA 18:10)

1. Kafedra nervnykh bolezney Voronezhskogo medicinskogo instituta.

CHUMAKOV, N.N.; SHIFRIN, A.R.; SMIRNOV, A.G.; KREPYSHEV, D.G.; VYSOTSKIY,
A.I.; KUZ'MINA, N.M.; STEPANOVA, N.N.

Control of athlete's foot among workers of a plant producing rubber
and industrial goods. Sov. med. 25 no.5:149-151 My '61.

(MIRA 14:6)

1. Iz kafedry kozhnykh i venericheskikh bolezney Yaroslavskogo
meditsinskogo instituta (zav. - prof. N.N.Chumakov) i Yaroslavskogo
oblastnogo venerologicheskogo dispansera (glavnyy vrach D.G.Krepyshev).
(RINGWORM) (FOOT—DISEASES)

FEDOROV, V.K., doktor med. nauk; FEDOROVA, G.P., kand. med. nauk;
SILVERMAN, N.P.

Visceral neurofibromatosis. Sov. med. 27 no.11:125-130
1963 (NIPA 18:1)

1. Iz kafedry obshchey khirurgii (zav. - chlen-korrespondent
AN SSSR prof. V.I. Struchkov) Moskovskogo ordena Lenina
meditsinskogo instituta imeni I.M. Sechenova na baze klini-
cheskoy bol'nitsy No.23 imeni "Medgortrud" (glavnyy vrach
A.M. Lobanova).

STEPANOVA, N.I. (Moskva)

Rare case of ameliaria. Arkh. pat., 26 no.4, 196-78 '64. (MIRA 18:7)

1. Patologoanatomicheskoye otdeleniye (zav. - deystvitel'nyy chlen
AMN SSSR prof. I.V.Davydovskiy) Gorodskoy klinicheskoy bol'nitsy
No.23 imeni Medsantrud (glavnyy vrach A.N.Lobanova).

STEPANOVA, N.S.; GOSHKINA, A.I.

Therapeutic solutions 22 and 44 and their use in the clinic. Akt.vop.
perel.krovi no.7:360-362 '59. (MIRA 13:1)

1. Klinika obshchey khirurgii I Leningradskogo meditsinskogo instituta
im. akademika I.P. Pavlova (zav. kafedroy - chlen-korrespondent AMN
SSSR prof. A.N. Filatov).
(STAPHYLOCOCCAL DISEASE)

L 43589-65 EWT(m)/ENP(t)/ENP(b) JD

ACCESSION NR: AT5009572

Z/0000/62/000/000/0064/0064

19
18
B+1

AUTHOR: Distanov, B. G.; Kresal'naya, L. Z.; Stepanova, N. S.

TITLE: Application of the liquid extraction method to the preparation of alkali halides and other high-purity salts

SOURCE: Konferentsiya o monokrystalech. 4th, Turnov, 1961. Sbornik referatov. Turnov, VUM, 1962, 64

TOPIC TAGS: alkali halide, salt purification, liquid extraction, heavy metal extraction, organic complex, dithizone, hydroxyquinoline, column chromatography, alumina

ABSTRACT: A promising and efficient method of purification by which heavy metals can be removed from salts is liquid extraction of the impurities, based on the "loss of affinity for water" of complex compounds formed by the ions of the impurities with various organic complex-forming agents. The method was applied to the following salts: LiCl, NaCl, KCl, KBr, NaI, RbI, CsI, KI, NaNO₃, and CaCl₂. The technique consisted of treating concentrated solutions of these salts with solutions of dithizone and ortho-hydroxyquinoline in carbon tetrachloride, then extracting the iron and heavy-metal impurities

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L 43589-65

ACCESSION NR: AT5009572

as dithizonates and hydroxyquinclates. Final purification was accomplished with a chromatographic column (alumina and channel black) to remove the remaining impurities and complex forming agents. Orig. art. has: 1 table.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov, Khar'kov
(All-Union Scientific Research Institute of Single Crystals)

SUBMITTED: 00

ENCL: 00

SUB CODE: IC

NO REF SOV: 003

OTHER: 000

E/8
Card

2/2

S/081/62/000/013/002/054
B158/B144

AUTHORS: Beljustin, A. V., Kolina, A. V., Stepanova, N. S.
TITLE: Crystallization of spheres in the presence of impurities
PERIODICAL: Referativnyi zhurnal. Khimiya, no. 13, 1962, 43 - 44,
abstract 13B250 (Sb. "Rost kristallov. v. 3". M., AN SSSR,
1961, 152 - 155)

TEXT: The effect of impurities on the form and quality of crystals growing on crystalline spheres from solutions was studied. Tests were carried out on crystallization of spheres of alumopotassium alum and Rochelle salt. Spheres of 10-15 mm dia. were suspended in the solution; thus it was noted which faces appeared in the presence of certain impurities. NaOH and KOH impurities result in the best development of all faces of Rochelle salt and improve their quality; $Al_2(SO_4)_3$ has a similar effect on alum. In other cases, impurities have a selective effect: H_2SO_4 causes a weakening in the {221} faces of alum, and faces {211} become larger. One and the same impurity can have the same effect on all faces

Card 1/2

Crystallization of spheres ...

S/081/62/000/013/002/054
B150/B144

at low concentrations, but a selective effect at high concentrations: at 10% excess of $Al_2(SO_4)_3$ in the alum solution, faces {211} develop noticeably more actively, while faces {221} are suppressed. The selective effect of an impurity or combination of impurities can spread to the whole range of orientations and the growth of a rounded surface becomes possible. The method of crystallizing spheres explains how an impurity affects the development and quality of a large number of faces, and enables a more thorough study of the general and selective effect of impurities. Impurities that substantially affect the process of crystal growth have a relatively weak effect on the complex of faces appearing on a sphere. Some impurities retard deposition of a substance on considerable sections of the sphere's surface and alter its character in such a way that the corresponding sections remain transparent. [Abstracter's note: Complete translation.] ✓

Card 2/2

S/078/62/007/006/019/024
B119/B138

AUTHORS: Distanov, B. G., Kresal'naya, L. Z., Stepanova, N. S.,
Kipriyanova, S. S.

TITLE: Production of high-purity alkali halide salts

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 7, no. 6, 1962, 1464-1465

TEXT: The authors purified the salts LiCl, NaCl, KCl, KBr, NaI, RbI, CsI, KI, NaNO₃, and CaCl₂ by extracting concentrated aqueous solutions of them with solutions of dithizon and o-hydroxyquinoline in carbon tetrachloride (at pH 7 - 7.5 and pH 5 - 6, respectively), and then passing the salt solutions through a chromatographic column (filling: Al₂O₃ and channel black in layers). The salts purified of Fe, Mn, Cu, Ni, and Co contained impurities of only $1 \cdot 10^{-5}$ - $1 \cdot 10^{-6}\%$, and are suitable for the production of single crystals. There are 2 tables.

SUBMITTED: August 7, 1961

Card 1/1

L 5081-66 EWT(1)/T IJP(c) 11

ACC NR: AP5024559

IR/0070/65/010/005/0743/0745

AUTHOR: Belyustin, A. V.; Stepanova, N. S.

TITLE: Method of growing crystals from solutions under static conditions

SOURCE: Kristallografiya, v. 10, no. 5, 1965, 743-745

TOPIC TAGS: crystal growing, thermostat, potassium compound

ABSTRACT: An earlier article (A. V. Belyustin, Kristallografiya, 6, 5, 807-808, 1961) described a very simple method of growing crystals from solutions under static conditions without thermostating (at room temperature). In the present paper, some improvements and modifications of this method are discussed. They concern primarily the insert of the crystallizer; the principle of the method and the shape of the crystallizer remain the same. Another improvement is the addition of thermostating; a suitable thermostat is described. The constant temperature and unchanging supersaturation achieved through the use of this thermostat minimize the strains in the crystals, and there are other practical advantages such as the simultaneous growing of a large number of crystals in separate crystallizers, small volume of solution, etc. Crystals of potassium phosphate dihydrate grown by this technique are illustrated. Orig. art. has: 2 figures.

ASSOCIATION: Gor'kovskiy issledovatel'skiy fiziko-tekhnicheskii institut (Gorkiy Physico-technic Research Institute)

SUBMITTED: 25Nov64

ENCL: 00

SUB CODE: SS

NO REF SOV: 001

OTHER: 000

Card 1/1

00010195

STEPANOVA, M.V.

Work of efficiency experts in a factory. Med.prom. 11 no.7:53-55
J1 '57. (MLRA 10:8)

1. Rizhskiy khimiko-farmatsevticheskiy zavod No. 3
(MEDICAL SUPPLIES)

STEPANOVA, N. V., Candidate Phys-Math Sci (diss) -- "The synchronization of a negative klystron". Moscow, 1959. 5 pp (Moscow Order of Lenin and Order of Labor Red Banner State U im M. V. Lomonosov, Phys Faculty), 150 copies (KL, No 25, 127)

68651

9,4220

S/141/59/002/05/012/026
EO41/E321

AUTHOR: Stepanova, N.V.

TITLE: Synchronization of a Reflex Klystron with a Small External Force

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, 1959, Vol 2, Nr 5, pp 753 - 758 (USSR)

ABSTRACT: The method due to R.V. Khokhlov is applied in the case where the amplitudes of the external (E_0) and controlled (A_0) voltages are related to cavity quality factor (Q) by $E_0 \ll A_0/Q$. The starting point is Eq (1) previously derived by the author in Ref 2. Close to synchronism the resultant waveform can be represented by Eq (2), where $A(t)$, the amplitude, and $\varphi(t)$, the phase, are slowly varying functions of time. Differential equations for A and φ are Eqs (4) and (5). The parameter $\mu = E_0 Q/A_0$ is then introduced and the expression for A is Eq (11). Three curves are drawn in Figure 1a showing normalized amplitude versus detuning. The limits

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S/141/59/002/05/012/026

E041/E321

Synchronization of a Reflex Klystron with a Small External Force

of the synchronizing interval are determined by $dW/dA = 0$; the appropriate locus (Eq 12) is shown dotted in Figure 1a. The amplitude and phase equations are re-written in Eqs (14), (15) in terms of a frequency deviation (Δ) and a capture limit (κ). When $\Delta < \kappa$ the equations describe the synchronization process within the locking range; when $\Delta > \kappa$ heats occur. The latter case is considered further. Figure 2 shows the variation of amplitude with time when the normalized capture limit is ± 0.0707 and the detuning is (a) 0.12, (b) 0.075, (B) 0.0725. Figure 16 gives the frequency curves corresponding to the conditions in Figure 1a. It is observed that the onset of synchronism occurs without any jump in frequency. The results have been verified experimentally using a power source of several W coupled via a 30-40 db attenuator to a klystron. The transit-angle deviation γ was 30° , $\phi = 200$ and $\mu = 0.8$. The latter value was much larger than the theory supposed but smaller values would have made measurements very difficult. The curve shapes, in Figure 3, for amplitude

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S/141/59/002/05/012/026

E041/E321

Synchronization of a Reflex Klystron with a Small External Force

and frequency agree well with the theory. K.F. Teodorchik
is thanked for discussions.

There are 3 figures and 4 Soviet references.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet
(Moscow State University)

SUBMITTED: February 25, 1959

✓

Card 3/3

STEPANOVA, N. V., and MINAKOVA, I.I.

"The Synchronization of a Reflex Klystron," by I. I. Minakova and N. V. Stepanova, Physics Faculty of the Moscow State University, Radiotekhnika i Elektronika, No 6, Jun 56, pp 805-808

The synchronous performances of a klystron oscillator under the influence of small exterior e.m.f. were theoretically and experimentally investigated. It was proved that the form of the amplitude curve and the width of the synchronization band substantially depend on the transit angle.

It was also shown that with increased divergence of the transit angle from the optimum value, under a constant ratio of the amplitude of the external forces to the amplitude of the free self-oscillations, the synchronization band width and amplitude maxima increase.

Sum 1239

12

9(4)

AUTHORS: Minakova, I. I., Stepanova, N. V., and Shuvalov, A. T. SOV/55-58-4-14/31

TITLE: Investigation of the Synchronization of a Reflex Klystron for a Small Sinusoidal Electro-Motive Force (Issledovaniye sinkhronizatsii otrazhatel'nogo klistrona maloy sinusoidal'noy odc.)

PERIODICAL: Vestnik Moskovskogo universiteta, Seriya matematiki, mekhaniki, astronomii, fiziki, khimii, 1958, Nr 4, pp 129-136 (USSR)

ABSTRACT: The synchronization of a reflex klystron is investigated theoretically and experimentally if there acts a small electro-motive force, the frequency of which approaches the frequency of the free vibrations. It is shown that the appearance of a delay in the neighbouring system, for an action of an outer electro-motive force, leads to several phenomena: Deformation of the amplitude curve and the region of the phase instability; beside the carrying along of the frequency of permanent vibrations by the frequency of the outer force there also appears a "repulsion" of the frequencies. The dependence of the width of the strip of synchronization and the maximal amplitude on the outer force, however, remain linear in a wide interval also for

Card 1/2

Investigation of the Synchronization of a Reflex
Klystron for a Small Sinusoidal Electro-Motive
Force

SOV/55-58-4-14/31

a delay. The theoretical and experimental results agreed very well. Also results of P.A. Ryazin [Ref 7] are confirmed. A method of K.F. Teodorovich [Ref 5] is used. There are 6 figures, and 8 references, 7 of which are Soviet, and 1 Swiss.

ASSOCIATION: Kafedra kolebaniy (Chair of Oscillations)

SUBMITTED: August 9, 1957

Card 2/2

L 2676-66 EWT(1)/EWA(j)/EWA(b)-2 JK
ACCESSION NR: AP5021288

UR/0020/65/163/005/1266/1269

AUTHOR: Stepanova, N. V.⁵⁵; Romanovskiy, Yu. M.⁵⁵; Iyerusalinskiy, N. D.⁵⁵ (Corresponding member AN SSSR)

TITLE: Mathematical model of the growth of microorganisms in a continuous culture

SOURCE: AN SSSR. Doklady, v. 163, no. 5, 1965, 1266-1269

TOPIC TAGS: bacteriology, mathematic model, differential equation, oscillograph

ABSTRACT: Tests with continuous cultures have shown that the basic features of biomass growth may be described knowing only the following values: concentration of the culture medium at its minimum, concentration of the inhibitor affecting the minimal rate in the biochemical order of reactions, and concentration of the biomass. The mathematical task thus consists of constructing and studying systems of kinetic differential equations, and the values of the coefficients in such systems may be obtained from the test itself. A model was constructed based on Propionibacterium shermanii grown in a culture medium with lactate as the carbon source. Given was the

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L 2676-66

ACCESSION NR: AP5021288

culture medium concentration S_0 entering the cultivator at rate F . The mixture of nonreacted lactate, biomass and fermentation products left the container at the same rate. The dilution coefficient $D = F/V$ characterizes the washing out of the biomass from the cultivator (V is the volume of the cultivator). The rate of change of concentration X of the biomass in the cultivator is expressed by the equation

$$dX/dt = -DX + \mu X. \quad (1)$$

where μ is the specific rate of growth, a nonlinear function of S which also depends on the concentration of P , one of the fermentation products (propionate). This formula is further developed to arrive at a system of equations which connects concentration of the biomass, culture medium, products of vital activity and their derivatives. Curves plotted on the basis of these equations closely approximated experimental curves. For the study of transitory processes appearing with a change in system parameters, a solution of the above system of nonlinear equations was required, and was obtained using an electron model. Processes of adjustment in the system may be determined with an oscillograph with photo attachment. The oscillograms

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L 2676-66
ACCESSION NR: AP5021288

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explain to a certain extent the nature of equilibrium stability. Further refinement of this method, including more accurate coefficients and introduction of factors characterizing bacterial inertia, will permit a more thorough study of the system's behavior and of biomass growth problems. Orig. art. has: 3 figures and 9 formulas.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University); Institut mikrobiologii Akademii nauk SSSR (Microbiology Institute, Academy of Sciences, SSSR) 55

SUBMITTED: 23Apr65

ENCL: 00

SUB CODE: LS, MA

NR REF SOV: 002

OTHER: 001

Card 3/3 *JD*

ACC NR: AP6035879 (H₁N) SOURCE CODE: UR/0413/66/000/020/0104/010422

INVENTOR: Gol'dat, S. Yu.; Sokolova, R. V.; Firsova, A. P.; Kadakova, L. P.; Parfenova, A. I.; Karakishisheva, T. I.; Stepanova, N. V.

ORG: none

TITLE: *Actinomyces aureofaciens* strain LSB-181, producing chlortetracycline and tetracycline. Class 30, No. 187242. [Announced by All-Union Scientific Research Institute for Antibiotics (Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov)]

SOURCE: Izobreteniya, promyshlennyye obrastey, tovarnyye znaki, no. 20, 1966, 104

TOPIC TAGS: antibiotic, drug, *Actinomyces aureofaciens*, chlortetracycline, tetracycline

ABSTRACT: An Author Certificate has been issued for strain LSB-181 of *Actinomyces aureofaciens*. Light-sensitive mycelia in 5—6 mm colonies appear on its tenth day of growth on no. 12 organic agar medium at 28C. On no. 11 synthetic medium, dirty-white colonies 2.5—3 mm in diameter appear, and on pea medium, brown, raised, wrinkled, as porulating colonies seven mm in diameter are found. Milk is completely peptonized on the tenth day, and coagulation is noted on the 15th day, at which

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UDC: 615.45:615.779.931

ACC NR: AP6035879

time the gelatin is also slightly liquified. The sporophores lack coils, and spores are rectangular and oval. Activity in laboratory conditions on regulation media with corn extract is of the order of 5000—5600 j/ml. Also, this strain is resistant to actinophages 22 and 22a. [WA-50]

SUB CODE: 06/ SUBM DATE: 28May65

Card 2/2

ACC NR: AP6035879 (A₁N) SOURCE CODE: UR/0413/66/000/020/0104/010422

INVENTOR: Gol'dat, S. Yu.; Sokolova, R. V.; Firsova, A. P.; Kadakova, L. P.; Parfenova, A. I.; Karakishisheva, T. I.; Stepanova, N. V.

ORG: none

TITLE: *Actinomyces aureofaciens* strain LSB-181, producing chlortetracycline and tetracycline. Class 30, No. 187242. [Announced by All-Union Scientific Research Institute for Antibiotics (Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov)]

SOURCE: Izobreteniya, promyshlennyye obrastay, tovarnyye znaki, no. 20, 1966, 104

TOPIC TAGS: antibiotic, drug, *Actinomyces aureofaciens*, chlortetracycline, tetracycline

ABSTRACT: An Author Certificate has been issued for strain LSB-181 of *Actinomyces aureofaciens*. Light-sensitive mycelia in 5-6 mm colonies appear on its tenth day of growth on no. 12 organic agar medium at 28C. On no. 11 synthetic medium, dirty-white colonies 2.5-3 mm in diameter appear, and on pea medium, brown, raised, wrinkled, as porulating colonies seven mm in diameter are found. Milk is completely peptonized on the tenth day, and coagulation is noted on the 15th day, at which

Card 1/2 UDC: 615.45:615.779.931

ACC NR: AP6035879

time the gelatin is also slightly liquified. The sporophores lack coils, and spores are rectangular and oval. Activity in laboratory conditions on regulation media with corn extract is of the order of 5000—5600 j/ml. Also, this strain is resistant to actinophages 22 and 22a. [WA-50]

SUB CODE: 06/ SUBM DATE: 28May65

Card 2/2

GERMANOVA, K.I.; LEVITOV, M.M.; STEPANOVA, N.Ye.; NEMASHEVA, A.M.

Physiological characteristics of various strains of *Penicillium*
chrysogenum; certain characteristics of metabolism in strains B-51-
20, 31 and 24 [with summary in English]. Antibiotiki 3 no.6:8-14
N-D '58. (MIRA 12:2)

(PENICILLIN, metabolism,
chrysogenum B-51-20, 31 & 24 (Rus))

POPOVA, L.A.; STEPANOVA, N.Ye.

Some problems in the physiology of a highly productive strain of *Streptomyces noursei* in connection with the biosynthesis of nystatin. Antibiotiki 7. no.12:1051-1057 D'62. (MIRA 16:5)

1. Vsesoyuznyy nauchno issledovatel'skiy institut antibiotikov.
(ACTINOMYCETES) (NYSTATIN)

POPOVA, L.A.; STEPANOVA, N.Ye.

Effect of fats on the formation of nystatin from a highly
productive strain of *Str. noursei*. Antibiotiki 7 no.10:
868-873 0'62 (MIRA 16:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.

SAVELIYEV, G. I.; STEPANOVA, O. I.; SERDYUK, R. L.

"The influence of nitrogen admixture on heat transfer in the condensation of moving water vapor at a pressure up to 12 ATM."

report submitted for 2nd All-Union Conf on Heat & Mass Transfer, Minsk, 4-12 May 1964.

Inst of Theoretical & Experimental Physics.

LIPATOVA, Nina Ivanovna; ~~STEPANOVA, Olga Mikhaylovna~~; KHARAS,
K.K., nauchn. red.; ISH, N.N., red.; TOKER, A.M.,
tekhn. red.

[Industrial training of cooks] Proizvodstvennoe obuchenie
povarov; metodicheskoe posobie. Moskva, Proftekhizdat,
1963. 187 p. (MIRA 16:9)

1. Zamestitel' direktora po uchebnoy rabote professional'no-
tekhnicheskogo uchilishcha No.10 Leningrada (for Lipatova).
2. Starshiy master proizvodstvennogo obucheniya professio-
nal'no-tekhnicheskogo uchilishcha No.10 Leningrada (for
Stepanova).

(Cooking schools)

STEPANOVA, O.O., kand.khim.nauk

Epoxy resins. Nauka i zhyttia 10 no.9:20-21 S '60.
(MIRA 13:9)

(Epoxy resins)

BYAKOV, V.M.; STEPANOVA, G.P.

Some correlations in the process of recrystallization of a
polydisperse system. Zhur. fiz. khim. 36 no.6:1324-1326 Jc'62
(NIRA 17:7)

1. Institut teoreticheskoy i eksperimental'noy fiziki AN SSSR.

BYAKOV, V. M.; STEPANOVA, O. P.

"Liquid mixing in boiling."

report submitted for 2nd All-Union Conf on Heat & Transfer, Minsk, 4-12 May
1964.

Inst of Theoretical & Experimental Physics.

L 40832-66 E #1(1) TH/GD

ACC NR: AT6021837 (A) SOURCE CODE: UR/0000/65/000/000/0084/0099

AUTHOR: Byakov, V. M.; Stepanova, O. P.; Ershler, B. V. 51

ORG: Institute of Theoretical and Experimental Physics, Moscow B+1
(Institut teoreticheskoy i eksperimental'noy fiziki)

TITLE: Heat transfer and mixing in a boiling liquid

SOURCE: Teplo- i massoperenos. t. III: Teplo- i massoperenos pri fazovykh prevrashcheniyakh (Heat and mass transfer. v. 3: Heat and mass transfer in phase transformations) Minsk, Nauka i tekhnika, 1965, 84-99

TOPIC TAGS: heat transfer, boiling, turbulent mixing

ABSTRACT: The article first considers the growth of individual bubbles of vapor in a superheated liquid. If the radius, R , of the bubble is sufficiently great so that the capillary pressure due to the curvature of the surface can be neglected, the determining factor in the growth rate of a bubble of vapor is the rate of heat supply from the surrounding medium. The situation is described by the following equation:

$$\rho^* L \frac{d}{dt} \left(\frac{4\pi R^3}{3} \right) = 4\pi R^2 \alpha (T - T^*) \left(\frac{3}{\pi a l} \right)^{1/2} \quad (1)$$

Card 1/2

L 40882-66

ACC NR: AT6021837

Here L is the heat of vapor formation; ρ is the density of the vapor; T is the temperature of the vapor; κ and α are, respectively, the coefficients of the thermal conductivity of the liquid and the thermal diffusivity. Next follows a mathematical treatment of the case of the growth of a spherical bubble which is moving with respect to the liquid. Further sections of the article are devoted to a mathematical development for a vapor bubble in a boiling liquid, of turbulent diffusion in a boiling liquid, and a consideration of the laws governing the bubbling process. Orig. art. has: 26 formulas and 6 figures.

SUB CODE: 20/ SUBM DATE: 09Dec65/ ORIG REF: 014/ OTH REF: 007

Cord 2/2/11

STEPANOVA, O.S. (gorod Odessa).

Hydrogenation processes in industry. Khim.v shkole no.6:16-23 M-D
(MIRA 6:11)
'53. (Hydrogenation)

Pan's Aleksandr Andreevich Verigo, O. S. Stepanova (L. I. L.
Machuliz, State Univ., (Moscow) ~~Historical~~ *Khim. Zvezda*
22, 122-56 (1956) (in Russian).—Historical. A. P. Kotleby

Category: USSR / Physical Chemistry / Kinetics. Combustion.
Explosives. Topochemistry. Catalysis.

B-9

Abs Jour: Referat Zhur-Khimiya, No 9, 1957, 30067

Author : Plisov A. K., Stepanova O. S.

Inst : Odessa University

Title : Preparation of Benzoic Acid by Decarboxylation of Phthalic Anhydride
with Odessa Green Clay

Orig Pub: Tr. Odessk. un-ta, 1956, ser. khim., 146, No 5, 91-93

Abstract: On passing a mixture of phthalic anhydride and water vapor (at a ratio of about 1 : 6) at 400° and anhydride space velocity of about 0.1 g per g of catalyst per hour, over catalysts prepared from clay of the deposits of Shkodova Gora (I) and Arkadiyskoye Poberezh'ye (II), benzoic acid was obtained with a yield of about 31% over I, and of about 76% over II. With a catalyst (Al₂O₃ + ZnO) deposited on pumice, under the same conditions, the yield is of 87-90%.

Card : 1/1

-30-

STEPANOVA, O.S., dotsent, kandidat khimicheskikh nauk; AL'TER, Ye.N.,
inzhener-khimik

Processing and inspection of "cholosas." Apt.delo 6 no.1:35-37
Ja-F '57. (MLRA 10:3)
(DOG ROSE) (DRUGS)

STEPANOVA, O.S.

AUTHORS: Stepanova, O.S. and Mozharovskaya, A.V. 73-1-23/26
TITLE: Stereochemical Researches of P. I. Petrenko-Kritchenko.
(~~Store~~khimicheskiye raboty P. I. Petrenko-Kritchenko).
(1866-1944).
PERIODICAL: Ukrainskiy Khimicheskiy Zhurnal, 1957, Vol.23, No.1,
pp. 122-127 (USSR)
ABSTRACT: Evaluation of the work in the field of stereochemistry
commemorating the 90th anniversary of the birth of this
scientist.
There are 18 Slavic references.
AVAILABLE: Library of Congress

Card 1/1

AL'TER, Ye.N.; STEPANOVA, O.S.; ZAKHARENKO, O.I.

New method for obtaining a thyme extract and the quantitative determination of thymol in it [with summary in English]. Apt.delo 8 no.1:
6-9 Ja-P '59. (MIRA 12:2)

(THYME)

STEPANOVA, Ol'ga Sergeyevna; BOGATSKIY, Aleksey Vsevolodovich;
GOLUB, A.M., otv.red.; TUBOLEVA, N.V., red.

[Chemistry in the service of people] Khimiia na sluzhbu naroda.
Kiev, 1960. 31 p. (Obshchestvo po rasprostraneniui politicheskikh
i nauchnykh znanii Ukrainskoi SSR. Ser.5, no.12)

(MIRA 14:2)

(Chemistry)

BOGATSKIY, A.V.; STEPANOVA, O.S.

Reactions of primary and secondary alkyl halides with sodium
malonate. Zhur. VKHO 5 no. 2:230 '60. (MIRA 14:2)

1. Odesskiy gosudarstvennyy universitet imeni I.I. Mechanikova.
(Alkyl halides) (Malonic acid)

AL'TER, Ye.N.; STEPANOVA, O.S.

Some peculiarities in obtaining and analysing natural gastric
juice. Apt.delo 9 no.1:67-68 J_a-P '60. (MIRA 13:6)
(GASTRIC JUICE)

BOGATSKII, A.V., Leningrad, 1961.

Relative reactivity of primary and secondary alkyl halides
in reactions with sodium malonic ester. Nauch. ezhegod. Khim.
fak. 34, un. no. 2: 87-89, 1961. (MIRA 17:8)

KONSHIN, D.P.; SIFENNOVA, O.S.; VAYSMAN, B.M.; POLYASHINA, G.I.

Determination of the readiness of modified glyptal resins,
binding agents for linoleum. Nauch. ezhegod. Khim. fak. Od.
un. no.21102-112 '61. (MIRA 17:8)

STEPANOVA, O.S.; MOZHAROVSKAYA, A.I. [Mozharovs'ka, A.I.]

Development of organic chemistry in works of the scientists
of the Odessa University. Nar.z ist.tekh. no.7:13-26 '61.
(MIRA 15:2)

(Chemistry, Organic)

AL'TER, Yo.N. [Al'tor, IE.N.]; STEPANOVA, O.S.

Physicochemical changes in natural gastric juice under the influence
of low temperatures and filtration. Farmatsev. zhur. 16 no. 2:60-63
'61. (MIRA 14:4)

1. Laboratoriya Odes'kogo khimfarmzavodu, Odes'kiy derzhavniy
universitet im. I.I. Mechnikova.
(GASTRIC JUICE)

30873
S/073/61/027/006/005/005
B110/B147

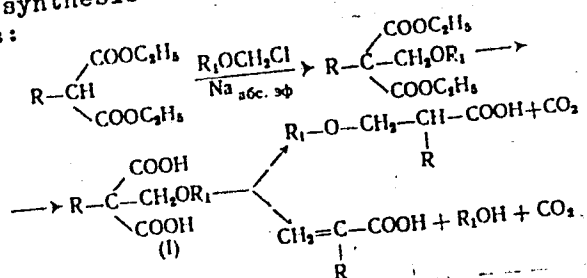
5.3400 2209

AUTHORS: Stepanova, O. S., Drozdovskaya, M. I.

TITLE: Alkyl acrylic acids and their derivatives.
II. Synthesis of α -butyl acrylic acid and its esters

PERIODICAL: Ukrainskiy khimicheskiy zhurnal, v. 27, no. 6, 1961, 786 - 788

TEXT: The authors investigated the synthesis of α -butyl acrylic acid (I) and produced some of its derivatives:



(R = n-butyl).

Card 1/4

S/073/61/027/006/005/005
B110/B147

Alkyl acrylic acids and their...

Butyl malonic ester was obtained from sodium malonic ester and butyl bromide with boiling point = $92^{\circ}\text{C}/3\text{ mm Hg}$, $n_D^{20}=1.4238$, $d_4^{20}=0.9756$. Methoxy methyl butyl malonate (II), was produced from sodium butyl malonate and methyl chloride ethyl ether in absolute ether with boiling point $112-113^{\circ}\text{C}/4\text{ mm Hg}$, $n_D^{20}=1.431$, $d_4^{20}=1.0011$, $M_R=67.23$ with 82% yield. (I) X

with the twofold amount of 33% alcohol, was heated for 3 hr with KOH. It was diluted with water, alcohol was distilled off, and methoxy butyl malonic acid (III) with 98% yield and boiling point 115°C was separated by excess H_2SO_4 . III was intensively heated for a longer period. The follow-

ing result was obtained by vacuum fractional distillation: (1) boiling point $94-95^{\circ}\text{C}/6\text{ mm Hg}$, (2) β -methoxy- α -butyl propionic acid (IV), boiling point $121-122^{\circ}\text{C}/6\text{ mm Hg}$. Optimum yield of I was obtained by 12 hr heating of III at $270-280^{\circ}\text{C}$. 28 and 76% yield of I was obtained after 20 and 70 hr heating of II with 10-fold HCl excess (2:1). I polymerizes on standing. When it is heated, the monomer is produced. PCl_5 with I yields the anhydride of chlorine, boiling point $167-169^{\circ}\text{C}$. NH_3 combined with the

Card 2/4
3

S/079/62/032/004/001/010
D204/D30111.8.70
AUTHOR:Stepanova, O.S.

TITLE:

Synthesis of α -allyl acrylic acid and its esters

PERIODICAL: Zhurnal obshchey khimii, v. 32, no. 4, 1962, 1026-1029

TEXT: The above was studied in the hope that presence of the unsaturated group in the molecule would increase the tendency towards polymerization. Methoxymethyl- and ethoxymethyl allyl malonic acids were first obtained by the acid and alkaline hydrolysis of the corresponding ethyl esters produced by the malonic ester synthesis, and were then decomposed by heating for 10 - 11 hours, at 220 - 230 °C. On fractionation under vacuum the thermally decomposed methoxymethyl allyl malonic ester gave: 1) 6 % methyl ester of the methoxymethyl allyl acetic acid, 2) 6 % of the corresponding ethyl ester, 3) 33.2 % of α -allyl acrylic acid (A), and 4) 52.0 % of methoxymethyl allyl acetic acid. Decomposition of the ethoxymethyl allyl malonic ester yielded only 2 pure fractions: 1) 23 % of A, and 2) 63% of the ethoxymethyl allyl acetic acid. The above percentages refer to yields. Further heating of the alkoxymethyl allyl acetic acids

Card 1/2

X

Synthesis of α -allyl acrylic acid and ... S/079/62/032/004/001/010
D204/D301

gave A and other products. The reaction is briefly discussed and the procedures and products are described in some detail. Me, Et and Pr esters of A were prepared by standard methods and their physical constants are tabulated. The compounds polymerized on standing, even at room temperature. On heating with traces of H_2SO_4 , A polymerized to a transparent, colorless thermoplastic mass insoluble in organic solvents. A.S. Kovbasyuk, L.I. Mitina and Lu-su-Hua took part in the work. There are 4 tables, and 7 references: 3 Soviet-bloc and 4 non-Soviet-bloc. The references to the English-language publications read as follows: C.S. Marwel, R.L. Myer, and J.H. Saunders, J.Am.Chem.Soc., 70, 1694, 1948; C.S. Marwel, W.R. Miller and L.S. Chow, ibid., 72, 5408, 1950; J.C. Crawford and S.D. Swift, ibid., 74, 1220, 1952; ibid., 75, 2858, 1953.

ASSOCIATION: Odesskiy gosudarstvennyy universitet imeni I.I. Mechnikova (Odessa State University imeni I.I. Mechnikov)

SUBMITTED: March 13, 1961

Card 2/2

X

STEPANOVA, O.S.

Synthesis of 1,4-dibromopentane and its reaction with
sodiummalonic ester. Zhur.ob.khim. 32 no.10:3295-3298
0 '62. (MIRA 15:11)

1. Odesskiy gosudarstvennyy universitet imeni I.I. Mechnikova.
(Penatane) (Malonic acid)

KONSHIN, M.P. [Konshyn, M.P.]; BEZGUDOVA, Zh.I. [Bezhudova, Zh.I.];
STEPANOVA, O.S., kand. khim. nauk

Effect of temperature on the content of three-dimensional
structures in glyptal resins. Khim. prom. [Ukr.] no.1:41-42
12-Mar'63 (NIRA 17:1)

1. Odeskiy probkovo-linoleumnyy zavod "Bil'shovyk" (for Konshin).
2. Odeskiy gosudarstvennyy universitet (for Bezgudova, Stepanova).

STEPANOVA, O.S.; DROZDOVSKAYA, A.I. [Drozdovs'ka, A.I.]; YATSENKO, G.A.
[IAtsenko, H.A.]

Synthesis of alkoxymethylalkylmalonic esters and acids.
Khim. prom. [Ukr.] no.2:49-51 Ap-Je '63. (MIRA 16:8)

1. Odesskiy gosudarstvennyy universitet.

STEPANOVA, O.S.; TISHCHENKO, O.I.; DROZDOVSKAYA, A.I.; KAL'NITSKAYA, E.A.;
PANCHUK, T.D.; YATSENKO, Ye.A.

Synthesis of some α -halo ethers. Zhur. VkhO 8 no.5:598-
599 '63. (MIRA 17:1)

1. Odesskiy gosudarstvennyy universitet imeni Mechnikova.

STEPANOVA, O.S.; YATSENKO, Ye.A.

Synthesis and saponification of alkoxymethyl alkyl malonic esters.
Ukr.khim.zhur. 29 no.6:612-614 '63. (MIRA 16:9)

1. Odesskiy gosudarstvennyy universitet.
(Malonic acid) (Saponification)

STEPANOVA, O.S.; SEMENYUK, L.A.; DROZDOVSKAYA, A.I.; YATSENKO, Ye.A.

Syntheses of methoxymethylalkyl derivatives of barbituric acid. Ukr. khim. zhur. 29 no.10:1115-1116 '63.

(MIRA 17:1)

1. Odeskiy gosudarstvennyy universitet im. I.I. Mechnikova.

ZAKHAROV, N.S.; STROMBERG, A.G.; STEPANOVA, O.S.; GURSKAYA, S.F.

Determination of the microconcentrations of germanium, barium,
potassium, nickel. Metod. anal. khim. reak. i prepar. no.5/6:
95-101 '63. (MIRA 17.9)

1. Tomskiy politekhnicheskiy institut.

STEPANOVA, O.S.; SAMITOV, Yu.Yu.; YATSENKO, Ye.A.

Nuclear magnetic resonance spectra of alkoxymethylethylmalonic acids
and their esters. Zhur.ob.khim. 33 no.7:2267-2270 J1 '63.

(MIRA 16:8)

1. Odesskiy gosudarstvennyy universitet i Kazanskiy gosudarstvennyy
universitet.

(Malonic acid—Spectra)

YATSENKO, Ye.A.; STEPANOVA, O.S.

Synthesis and transformations of alkoxymethyl alkyl malonic esters.
Part 1: Decomposition of alkoxymethylethylmalonic acids on heating.
Zhur.ob.khim. 33 no.12:3823-3825 D '63. (MIRA 17:3)

STEPANOVA, O.S., kand.khim.nauk; KONSHIN, N.P. [Konshyn, N.P.];
BEZGUDOVA, Zh.I. [Bezhudova, Zh.I.]

Continuous re-esterification of oils. Khim.prom. [Ukr.] no.1:
6-8 Ja-Mr '64. (MIRA 17:3)

ACCESSION NR: AP4041679

S/0153/64/007/002/0184/0188

AUTHOR: Stepanova, O. S., Zakharov, M. S., Trushina, L. F., Aparina, V. I.

TITLE: Investigation of intermetallic compounds of gallium and germanium with copper and of gold with cadmium by the accumulated mercury polarographic method

SOURCE: IVUZ. Khimiya i khimicheskaya tekhnologiya, v. 7, no. 2, 1964, 184-188

TOPIC TAGS: gallium copper intermetallic compound, germanium copper intermetallic compound, gold cadmium intermetallic compound, CdAu, GaCu, GeCu, polarography, accumulated mercury electrode, stationary mercury electrode, solubility product

ABSTRACT: Intermetallic compounds of Ga and Cu, Ge and Cu, and Cd and Au were studied to determine their composition. Type 7-77-4b polarograph with an electrolyser, which was described by A.G. Stromberg, M.S. Zakharov, L.F. Zaichko (Zavodsk. laboratoriya, 27, 517 (1961)), was used in the investigation. The following electrolytes were used: for Ga-Cu, 0.1M KCl + 0.1M sodium salicylate;

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ACCESSION NR: AP4041679

for Ge-Cu, 0.2M Na_2CO_3 + 0.025M complexon III; and for Au-Cd, 0.1M $(\text{NH}_4)_2\text{SO}_4$. The Cd, Ga and Ge concentrations were of the order of 10^{-4} mol/l. The anodic peaks for Cd, Ga and Ge disappeared when $[\text{Au}] : [\text{Cd}] = 1$, $[\text{Cu}] : [\text{Ga}] = 1$ and $[\text{Cu}] : [\text{Ge}] = 3$, respectively, indicating the intermetallic compounds CdAu, GaCu and GeCu₃. The solubility product of GaCu and GeCu₃ in mercury was determined (2×10^{-6} and 8.4×10^{-13} gm. at. 2^{1-2} , respectively) by calculations described by A.G. Stromberg, V.E. Gorodovskiy (Zh. neorgan. khimii, 8, 2355 (1963)). The solubility product of CdAu could not be calculated since the potential of the Au anodic peak is higher than that of the mercury solution. The maximum concentrations of Ga and Cu and of Ge and Cu ions which do not form intermetallic compounds in mercury and which therefore can be determined without introducing errors under given analytical conditions were determined. A greater concentration of these ions can be counteracted by decreasing electrolysis time or increasing the volume of mercury. "In conclusion I thank Prof. A.G. Stromberg for valuable advice in conducting and evaluating the work." Orig. art. has: 5 equations, 1 figure and 2 tables.

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ACCESSION NR: AP4041679

ASSOCIATION: Kafedra fizicheskoy i kolloidnoy khimii, Tomskiy politekhnicheskiy institut im. S. M. Kirova (Department of Physical and Colloidal Chemistry, Tomsk Polytechnic Institute)

SUBMITTED: 23Jul63

ENCL: 00

OTHER: 004

SUB CODE: IC, OP

KR REF SOV: 009

Card 3/3

L 6727465 EWT(m)/EWP(q)/EWP(b) SSD/AFWL/ESD(gs)/RAEM(t) JD/JG

ACCESSION NR: AP4046462

S/0032/64/030/010/1180/1181

AUTHORS: Stepanova, O. S.; Zakharov, M. S.; Trushina, L. F.

TITLE: Determination of ²⁷germanium in ²⁷indium of ¹⁸high purity by the method of amalgam polarography with accumulation

SOURCE: Zavodskaya laboratoriya, v. 30, no. 10, 1964, 1180-1181

TOPIC TAGS: indium, germanium, polarography, impurity content, quantitative analysis

ABSTRACT: A method is proposed whereby germanium can be extracted from indium of high purity by means of a reaction which produces germanium tetrachloride. Subsequent polarographic analysis determines the quantity of germanium extracted. The indium specimen is treated with 9-n HCl and CCl_4 , whereupon the germanium goes into solution. Further mixing with water prepares the dissolved germanium for extraction by electrolysis. Results of tests revealed that a maximum sensitivity of $10^{-6}\%$ Ge can be attained with a relative error of 6 to 10%. Orig. art. has: 1 table and 1 figure.

Card 1/2

L 6727-65

ACCESSION NR: AP4046462

ASSOCIATION: Tomskiy politekhnicheskii institut im. S.M. Kirova (Tomsk Polytechnic Institute)

SUBMITTED: 00

EXCL: 00

SUB CODES: GC, MM

NO REF SOV: 004

OTHER: 000

Card 2/2

STEPANOVA, O.S.; ZAKHAROV, M.S.; TRUSHINA, L.F.; APARINA, V.I.

Study of intermetallic compounds of gallium and germanium with copper and gold with cadmium by the method of amalgam polarography with storage. Izv. vys. ucheb. zav.; khim. i khim. tekhn. 7 no.2:184-188 '64. (MIRA 18:4)

1. Kafedra fizicheskoy i kolloidnoy khimii Tomskogo politekhnicheskogo instituta im. S.M. Kirova.

STEFANOVA, G.I.; GUMENYAYA, L.Ia.

Synthesis and transformations of alkoxyethyl alkyl malonate esters. Part 5: Synthesis and some transformations of alkoxyethylheptylmalonic esters. *Zhur. ob. khim.* 34 no. 5: 1467-1469 My '61. (MIRA 17:7)

SAMITOV, Yu.Yu.; YATSENKO, Ye.A.; STEPANOVA, O.S.

Synthesis and transformations of alkoxymethylalkyl malonic esters. Part 3: Nuclear magnetic resonance spectra of methyl esters of β -alkoxy- α -ethylpropionic acids. Zhur. ob. khim. 34 no.8:2652-2654 Ag '64. (MIRA 17:9)

1. Odesskiy gosudarstvennyy universitet im. I.I. Mechnikova i Kazanskiy gosudarstvennyy universitet im. V.I. Ul'yanova-Lenina.